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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,030	12/19/2001	Gwo-Ji Horng	JCLA8482	9497

7590

04/02/2004

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EXAMINER

TRINH, MINH N

ART UNIT	PAPER NUMBER
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3729

6

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/034,030

Applicant(s)

HORNG ET AL.

Examiner

Minh Trinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 26-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11, 12, 26-29, 33, 34 and 37-43 is/are rejected.
- 7) ☒ Claim(s) 6-10, 13, 14, 30-32, 35 and 36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The amendment filed in paper No. 6 (dated 12/16/2003) has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 26 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Araki et al (US 5,855,711). This rejection is set forth in prior Office Action, Paper No. 4, dated 9/24/2003, paragraph 3.
4. Claims 27-29, 33, 34, 37-39, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al (US 5,855,711). This rejection is set forth in prior Office Action, Paper No. 4, dated 9/24/2003, paragraph 5.
5. Claims 1-5 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al (US 5,855,711) in view of Watanabe et al (US 6,326,651). This rejection is set forth in prior Office Action, Paper No. 4, dated 9/24/2003, paragraph 6.

### ***Response to Arguments***

6. Applicants' arguments filed in paper No. 5, dated 12/16/2003 have been fully considered but they are not persuasive.

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a). Applicants' arguments under the heading "Remarks" that the Araki et al fails to disclose the step of "before co-firing thermal conductive openings are formed through green tapes and a metal paste is filled into the thermal conductive openings" (see under the "Remarks", page 14, 2<sup>nd</sup> paragraph, lines 4-6). The Examiner disagrees for the following reasons, Applicants are referred to Figs. 4-5 of Araki et al, depicts a plurality of green tapes 20 having conductive openings 21 and the conductive metal filled 51 associated thereof). Therefore, the limitation as described above is met by Araki et al.

b) Regarding to reference 51 of Araki et al, it is clearly that 51 is a conductor being filled with the via hole 21 (as clearly shown in Fig. 4 and the discussion at col. 6, lines 41-43).

c) Further, In response to applicants' arguments (see under "Remarks" page 14, 2<sup>nd</sup> paragraph, lines 10-11) that the references fail to show certain features of applicants' invention, it is noted that the features upon which applicant relies (i.e., "the heat generated by a chip can be transmitted to the ambient through the conductor) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

d) Applicants' arguments, under the "Remarks", page 15, 1<sup>st</sup> paragraph have been carefully reviewed and are not persuasive for the same reasons as set forth in a-c above.

\* In light of the above, Applicant's arguments with respect to Araki et al and/or Araki in view of Watanabe, are moot. It is noted that Applicants' arguments do not

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clearly point out the patentable novelty, which they think the claims present in view of the state of the art disclosed by the references cited or the rejection made. Further, they do not show how the amendments avoid such references.

### ***Allowable Subject Matter***

7. Claims 6-10, 13-14, 30-32 and 35-36 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The reasons for the indication of allowable subject matter as set forth in prior Office Action dated 9/24/2003.

### ***Interviews After Final***

8. Applicants note that an interview after a final rejection will not be granted unless the intended purpose and content of the interview is presented briefly, in writing (the agenda of the interview must be in writing). Such an interview may be granted if the examiner is convinced that disposal or clarification for appeal may be accomplished with only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations which would require more than nominal reconsideration or new search will be denied. See MPEP 714.13 and 713.09.

### ***Conclusion***

9. Please provide numeral references to the claimed limitations as well as support in the disclosure (i.e., page and line numbers and reference number associated with

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from the drawings) for better clarity. Applicants require pointing out the support for any amendment made to the disclosure and the claims. See 37CFR 1.111 and section 2163.06 of the MPEP.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (703) 305-2887. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



Minh Trinh

Patent Examiner Group 3729

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